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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
SHAW, AMANDA MARIE	

ART UNIT	PAPER NUMBER
1634	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/538,534	FRASCH ET AL.	
	Examiner	Art Unit	
	AMANDA SHAW	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *40--59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *40--59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *6/10/2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☒ Other: *Notice to Comply*.

DETAILED ACTION

1. This action is in response to the amendment filed May 1, 2008. This action is made FINAL.

Claims 40-59 are currently pending. All the claims have been previously presented.

Specification

2. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). This application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) on the attached Notice To Comply and reiterated below.

In the instant case Figure 4 contains a nucleic acid sequences that is not listed in a Sequence Listing. Patent Applications which contain disclosures of sequences must contain, as a separate part of the disclosure, a paper copy disclosing the sequences, referred to as the "Sequence Listing". Applicants are also required to file a computer readable form (CRF) copy of the "Sequence Listing". Additionally a statement that the content of the paper and computer readable forms are the same must be submitted. For further guidance see MPEP 2422. Further it is noted that where the description of a patent application discuss a sequence that is set forth in the "Sequence Listing", reference must be made to the sequence by use of a sequence identifier, preceded by "SEQ ID NO:" in the text of the description even if the sequence is also embedded in the text. Therefore Applicants are required to identify the nucleic acid sequence in Fig 4 by

its SEQ ID NO: in either the brief description of the drawings or the drawings themselves.

Since this objection is being presented in a FINAL Office Action for the first time, an amendment submitted after final to correct this defect would be entered after final.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 40-45 and 47-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al (Nature 2001) in view of Sonnichsen (Physical Review

Letter Pub 1/2002) as evidenced by Mock (Nano Letters Pub 4/2002) and in further view of Pettingell et al (US Patent 6449088 Filed 1993).

Regarding Claims 40-45 Yasuda teaches a molecular structure having a rotating arm, wherein the molecular structure is an F1-ATPase enzyme (Abstract). Yasuda further teaches attaching a nanoparticle (i.e. a 40 nm bead) to the rotating arm of the molecular structure so that the nanoparticle rotates with the rotating arm of the molecular structure (See Fig 1). Yasuda further teaches that bead rotation was imaged by laser dark field microscopy and only light scattered by the bead was detected (Page 898 and Fig 1). Thus Yasuda teaches a step of exposing a light to the nanoparticle wherein the nanoparticle scatters light.

Yasuda does not teach a method wherein the nanoparticle has a first surface and a second surface wherein the first surface has greater area than the second surface. Yasuda does not teach that the first surface of the nanoparticle scatters a first polarized wavelength of the light when the nanoparticle is in a first position and the second surface of the nanoparticle scatters a second polarized wavelength of light when the nanoparticle is in a second position. Further Yasuda does not teach a method wherein the nanoparticle is a gold nanorod. Additionally Yasuda does not teach a method wherein the first polarized wavelength of light is longer than the second polarized wavelength of light. Finally Yasuda does not teach a method wherein the first polarized wavelength of light is red light and the second polarized wavelength of the light is green light.

However Sonnichsen teaches gold nanoparticles that are in the shape of rods. The rods have diameters of b= 15-25 nm along the two short axes and lengths of up to a= 100 nm (page 2, col 1). Thus Sonnichsen teaches a nanoparticle that has a first and second surface wherein one surface has a greater area that the other surface. Sonnichsen further describes the typical single particle scattering spectra from a nanorod. Sonnichsen teaches that the long axis resonance can examined by using excitation light polarized along the rod axis and that the short axis resonance spectra can be examined by using excitation light polarized along the short axis (page 2, col 2). Thus Sonnichsen teaches a nanoparticle having at least two surfaces wherein the first surface scatters a first polarized wavelength of the light when the nanoparticle is in a first position relative to the light source (i.e., when the light is polarized along the long axis) and the second surface of the nanoparticle scatters a second polarized wavelength of light when the nanoparticle is in a second position relative to the light source (i.e., when the light is polarized along the short axis). Further it is an inherent property that when light is polarized along the long axis of a gold nanorod it produces red light which has a longer wavelength) and when light is polarized along the short axis of the gold nanowire it produces green light (which has a shorter wavelength). This is evidenced by the teachings of Mock (See Fig 3).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Yasuda by using a gold nanorod as suggested by Sonnichsen. In the instant case, gold nanorods make it possible to observe a rotational motion because gold nanorods have two different

surface plasmon resonances which makes it possible to observe alternating first and second wavelengths of light as the nanoparticles move from a first position (i.e. where the light is polarized along the long axis) to a second position (i.e. where the light is polarized along the short axis). Additionally Sonnichsen teaches that they found a drastic reduction of the plasmon dephasing rate in nanorods as compared to nanospheres and that nanorods compared to nanospheres showed much weaker radiation damping. These findings result in relatively high light scattering efficiencies and large local field enhancement factors, making nanorods interesting for a range of optical applications (page 4, col 2). Further the claimed invention would have been obvious because the substitution of a nanosphere for a nanorod would have yielded predictable results (i.e., the ability to observe alternating first and second wavelengths of light as the nanorods move from one position to the next position) to one of ordinary skill in the art at the time of the invention.

Additionally it is noted that the combined teachings of Yasuda and Sonnichsen do not teach a step of filtering the first and second wavelengths of light through a polarizing filter.

However Pettingell discloses using polarizing microscopes which use polarizers to look at anisotropic materials (e.g., materials that have a first and second axis) (Column 3, lines 10-15). The polarizing filters are used to separate the first and second wavelengths of light generated by anisotropic materials.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Yasuda and Sonnichsen

by using the polarizer of Pettingell. Polarizers were well known in the art at the time of the invention for looking at anisotropic materials as demonstrated by Pettingell. In the instant case all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Regarding Claims 47-52 Yasuda teaches attaching a nanoparticle (i.e. a 40 nm bead) to the rotating arm of an F1-ATPase enzyme so that the nanoparticle rotates with the rotating arm of the F1-ATPase enzyme (See Fig 1). Yasuda further teaches that bead rotation was imaged by laser dark field microscopy and only light scattered by the bead was detected (Page 898 and Fig 1). Thus Yasuda teaches a step of exposing a light to the nanoparticle wherein the nanoparticle scatters light.

Yasuda does not teach a method wherein the nanoparticle has a first surface and a second surface wherein the first surface has greater area than the second surface. Yasuda does not teach exposing light to a first surface of the nanoparticle to scatter a first polarized wavelength of the light and exposing light to a second surface of the nanoparticle to scatter a second polarized wavelength of light. Further Yasuda does not teach a method wherein the nanoparticle is a gold nanorod. Additionally Yasuda does not teach a method wherein the first polarized wavelength of light is longer than the second polarized wavelength of light.

However Sonnichsen teaches gold nanoparticles that are in the shape of rods. The rods have diameters of b= 15-25 nm along the two short axes and lengths of up to

a= 100 nm (page 2, col 1). Thus Sonnichsen teaches a nanoparticle that has a first and second surface wherein one surface has a greater area that the other surface. Sonnichsen further describes the typical single particle scattering spectra from a nanorod. Sonnichsen teaches that the long axis resonance can examined by using excitation light polarized along the rod axis and that the short axis resonance spectra can be examined by using excitation light polarized along the short axis (page 2, col 2). Thus Sonnichsen teaches a nanoparticle having at least two surfaces wherein the first surface scatters a first polarized wavelength of the light when the nanoparticle is in a first position relative to the light source (i.e., when the light is polarized along the long axis) and the second surface of the nanoparticle scatters a second polarized wavelength of light when the nanoparticle is in a second position relative to the light source (i.e., when the light is polarized along the short axis). Further it is an inherent property that when light is polarized along the long axis of a gold nanorod it produces red light which has a longer wavelength) and when light is polarized along the short axis of the gold nanowire it produces green light (which has a shorter wavelength). This is evidenced by the teachings of Mock (See Fig 3).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Yasuda by using a gold nanorod as suggested by Sonnichsen. In the instant case, gold nanorods make it possible to observe a rotational motion because gold nanorods have two different surface plasmon resonances which makes it possible to observe alternating first and second wavelengths of light as the nanoparticles move from a first position (i.e. where

the light is polarized along the long axis) to a second position (i.e. where the light is polarized along the short axis). Additionally Sonnichsen teaches that they found a drastic reduction of the plasmon dephasing rate in nanorods as compared to nanospheres and that nanorods compared to nanospheres showed much weaker radiation damping. These findings result in relatively high light scattering efficiencies and large local field enhancement factors, making nanorods interesting for a range of optical applications (page 4, col 2). Further the claimed invention would have been obvious because the substitution of a nanosphere for a nanorod would have yielded predictable results (i.e., the ability to observe alternating first and second wavelengths of light as the nanorods move from one position to the next position) to one of ordinary skill in the art at the time of the invention.

Additionally it is noted that the combined teachings of Yasuda and Sonnichsen do not teach a step of filtering the first and second wavelengths of light through a polarizing filter.

However Pettingell discloses using polarizing microscopes which use polarizers to look at anisotropic materials (e.g., materials that have a first and second axis) (Column 3, lines 10-15). The polarizing filters are used to separate the first and second wavelengths of light generated by anisotropic materials.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Yasuda and Sonnichsen by using the polarizer of Pettingell. Polarizers were well known in the art at the time of the invention for looking at anisotropic materials as demonstrated by Pettingell. In the

instant case all of the claimed elements were known in the prior art and one skilled in the art could have combined the elements, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

5. Claims 54-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al (Nature 2001) in view of Sonnichsen (Physical Review Letter Pub 1/2002) as evidenced by Mock (Nano Letters Pub 4/2002).

Regarding Claims 54-59 Yasuda teaches attaching a nanoparticle (i.e. a 40 nm bead) to the rotating arm of an F1-ATPase enzyme so that the nanoparticle rotates with the rotating arm of the F1-ATPase enzyme (See Fig 1). Yasuda further teaches that bead rotation was imaged by laser dark field microscopy and only light scattered by the bead was detected (Page 898 and Fig 1). Thus Yasuda teaches a step of exposing a light to the nanoparticle wherein the nanoparticle scatters light.

Yasuda does not teach a method wherein an anisotropic nanoparticle is used. Yasuda does not teach exposing light to the anisotropic nanoparticle to scatter first polarized and second polarized wavelengths of the light. Further Yasuda does not teach a method wherein the anisotropic nanoparticle is a gold nanorod. Yasuda does not teach that the anisotropic nanoparticle has a first surface and a second surface wherein the first surface has greater area than the second surface. Additionally Yasuda does not teach a method wherein the first polarized wavelength of light is longer than the second polarized wavelength of light.

However Sonnichsen teaches gold nanoparticles that are in the shape of rods. The rods have diameters of b= 15-25 nm along the two short axes and lengths of up to a= 100 nm (page 2, col 1). Thus Sonnichsen teaches a nanoparticle that has a first and second surface wherein one surface has a greater area that the other surface. Sonnichsen further describes the typical single particle scattering spectra from a nanorod. Sonnichsen teaches that the long axis resonance can examined by using excitation light polarized along the rod axis and that the short axis resonance spectra can be examined by using excitation light polarized along the short axis (page 2, col 2). Thus Sonnichsen teaches a nanoparticle having at least two surfaces wherein the first surface scatters a first polarized wavelength of the light when the nanoparticle is in a first position relative to the light source (i.e., when the light is polarized along the long axis) and the second surface of the nanoparticle scatters a second polarized wavelength of light when the nanoparticle is in a second position relative to the light source (i.e., when the light is polarized along the short axis). Further it is an inherent property that when light is polarized along the long axis of a gold nanorod it produces red light which has a longer wavelength) and when light is polarized along the short axis of the gold nanowire it produces green light (which has a shorter wavelength). This is evidenced by the teachings of Mock (See Fig 3).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Yasuda by using a gold nanorod as suggested by Sonnichsen. In the instant case, gold nanorods make it possible to observe a rotational motion because gold nanorods have two different

surface plasmon resonances which makes it possible to observe alternating first and second wavelengths of light as the nanoparticles move from a first position (i.e. where the light is polarized along the long axis) to a second position (i.e. where the light is polarized along the short axis). Additionally Sonnichsen teaches that they found a drastic reduction of the plasmon dephasing rate in nanorods as compared to nanospheres and that nanorods compared to nanospheres showed much weaker radiation damping. These findings result in relatively high light scattering efficiencies and large local field enhancement factors, making nanorods interesting for a range of optical applications (page 4, col 2). Further the claimed invention would have been obvious because the substitution of a nanosphere for a nanorod would have yielded predictable results (i.e., the ability to observe alternating first and second wavelengths of light as the nanorods move from one position to the next position) to one of ordinary skill in the art at the time of the invention.

6. Claims 46 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda et al (Nature 2001) in view of Sonnichsen (Physical Review Letter Pub 1/2002), as evidenced by Mock (Nano Letters Pub 4/2002), and Pettingell et al (US Patent 6449088 Filed 1993) as applied to claims 40 and 47 above and in further view of Felder (US Patent 6232066).

The teachings of Yasuda, Sonnichsen, Mock, and Pettingell are presented above.

The combined references do not teach a method which further includes a step of disposing a detection DNA strand between the nanoparticle and the molecular structure, wherein the detection DNA strand hybridizes with a target DNA strand, if the target DNA strand matches the detection DNA strand, to form a structural link between the molecular structure and the nanoparticle.

However Felder teach an array of probes comprising anchor oligonucleotides immobilized to the substrate and a linker oligonucleotide attached to the anchor oligonucleotides. In the presence of a target nucleic acid, the target binds to the said linker followed by the hybridization of a detector oligonucleotide which has a reporter (Column 1 line 66 to Column 2 line 3 and Figure 1). Thus the linker oligonucleotide and the target nucleotide form a structural link between the anchor and the nanoparticle.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Yasuda et al by using a nucleic acid strand to attach the nanoparticle to the molecular structure as suggested by Felder because hybridization methods which use linker oligonucleotides attached to a solid support which bind to target nucleotides attached to detection molecules were routinely performed in the art as demonstrated by Felder. One would be motivated to use nucleic acids rather than streptavidin for the benefit of being able to detect hybridization.

Response To Arguments

7. In the response filed May 1, 2008, Applicants traversed the rejections made under 35 USC 103(a).

The Applicants first argument is that there is no reason why an artisan concerned with detecting rotational motion would look to Sonnichsen since Sonnichsen is not concerned with motion detectors. This argument has been fully considered but is not persuasive because Sonnichsen is being relied upon to teach the light scattering properties of gold nanospheres and gold nanorods. Based on the teachings in Sonnichsen one of skill in the art would have recognized that since gold nanorods have two different surface plasmon resonances it would be possible to use gold nanorods for detecting rotation by observing the alternating first and second wavelengths of light as the nanorods move from a first position (i.e. where the light is polarized along the long axis) to a second position (i.e. where the light is polarized along the short axis). Therefore in the instant case the substitution of a nanosphere for a gold nanorod would have yielded predictable results (i.e., the ability to observe alternating first and second wavelengths of light as the nanorods move from one position to the next position) to one of ordinary skill in the art at the time of the invention.

The Applicants next argument is that even if one did look to Sonnichsen the artisan would be more likely to explore the aspects of the gold nanospheres rather than the gold nanorods of Sonnichsen. This argument has been fully considered but is not persuasive because this is only an opinion of the Applicants and it is not supported by any evidence. Further it is noted that Sonnichsen teaches that they found a drastic

reduction of the plasmon dephasing rate in nanorods as compared to nanospheres and that nanorods compared to nanospheres showed much weaker radiation damping. These findings result in relatively high light scattering efficiencies and large local field enhancement factors, making nanorods interesting for a range of optical applications (page 4, col 2). Thus one would not necessarily choose to explore the aspects of the gold nanospheres over the gold nanoparticles.

Thirdly the Applicants argue that even if the gold nanorods were substituted for the beads of Yasuda there would be no reason to change the observation technique that Yasuda uses. They further argue that neither the primary or secondary references mention observing first and second wavelengths of light in an alternating polarized fashion from light scattered by a nanorod. This argument has been fully considered but is not persuasive. In the instant case Pettingell discloses using polarizing microscopes which use polarizers to look at anisotropic materials (e.g., materials that have a first and second axis such as nanorods) (Column 3, lines 10-15). The polarizing filters are used to separate the first and second wavelengths of light generated by anisotropic materials. Thus after the substitution of a non anisotropic material (i.e. the bead of Yasuda) for an anisotropic material (i.e. the nanorod of Sonnichsen) it would have been obvious to look at other observation techniques particularly ones that are used for looking at anisotropic materials since nanorods are anisotropic.

The Applicants further argue that the combined references do not suggest critical aspects of the present invention, particularly the fact that a nanorod would be able to scatter polarized light of first and second wavelengths whereby this could be observed

by filtering, and this could be used as a detection modality for a molecularly sized rotating arm. This argument has been fully considered but is not persuasive. In the instant case it is a property of the nanorod that is able to scatter polarized light of first and second wavelengths. This property is taught by Sonnichnsen. Further it was well known that first and second wavelengths of light produced by anisotropic molecules such as nanorods could be observed by filtering as taught by Pettingell. Finally for the reasons mentioned above it would be obvious to substitute the bead of Yasuda for the gold nanorod to detect rotational motion. Thus the combination of references leads to the claimed invention.

Further the Applicants argue that the examiner has relied upon prohibited hindsight in casting the rejection. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

For these reasons all of the rejections made under 35 USC 103(a) are maintained.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amanda M. Shaw whose telephone number is (571) 272-8668. The examiner can normally be reached on Mon-Fri 7:30 TO 4:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached at 571-272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amanda M. Shaw
Examiner
Art Unit 1634

/Carla Myers/
Primary Examiner, Art Unit 1634